

Title (en)

GAS TURBINE ENGINE WITH ACOUSTIC SPACING OF THE FAN BLADES AND OUTLET GUIDE VANES

Title (de)

GASTURBINENMOTOR MIT AKUSTISCHEM ABSTAND DER FANSCHAUFELN UND AUSTRITTSLEITSCHAUFELN

Title (fr)

MOTEUR À TURBINE À GAZ AVEC ESPACEMENT ACOUSTIQUE DES AUBES DE SOUFFLANTE ET DES AUBES DIRECTRICES DE SORTIE

Publication

EP 4365409 A1 20240508 (EN)

Application

EP 23204278 A 20231018

Priority

US 202217979992 A 20221103

Abstract (en)

A gas turbine engine (100) comprises a fan (110), a core turbine engine (103) coupled to the fan, a fan case (180) housing the fan and the core turbine engine, a plurality of outlet guide vanes (190) extending between the core turbine engine and the fan case, and an acoustic spacing (AC). The fan comprises a plurality of fan blades (113) that define a fan diameter and a BEAL. The fan case comprises an inlet and an inlet length between the inlet and the fan. The acoustic spacing comprises a distance between the fan (110) and the plurality of outlet guide vanes (190), and in combination with the BEAL determines an acoustic spacing ratio (ASR) of the gas turbine engine.

IPC 8 full level

F01D 5/14 (2006.01); **F02C 7/045** (2006.01); **F02K 3/06** (2006.01)

CPC (source: EP US)

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F05D 2220/36 (2013.01 - EP); **F05D 2260/40311** (2013.01 - EP); **F05D 2260/96** (2013.01 - EP US)

Citation (applicant)

- US 2022042461 A1 20220210 - MOLESINI PIETRO [IT], et al
- US 9249530 B2 20160202 - YOON YOSANG [US], et al
- US 7101154 B2 20060905 - DAMBRINE BRUNO [FR], et al

Citation (search report)

- [Y] US 2017314562 A1 20171102 - ROSE BECKY E [US]
- [Y] EP 3085897 B1 20210922 - RAYTHEON TECH CORP [US]
- [Y] US 11199196 B2 20211214 - BREEN CLIVE [GB]
- [Y] US 2019128123 A1 20190502 - PARUCHURI CHAITANYA [GB], et al
- [Y] US 2019376529 A1 20191212 - JOSEPH PHILIP [GB], et al
- [A] US 5169288 A 19921208 - GLIEBE PHILIP R [US], et al
- [A] US 2016363137 A1 20161215 - TOPOL DAVID A [US], et al

Designated contracting state (EPC)

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Designated extension state (EPC)

BA

Designated validation state (EPC)

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